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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/727,903 | 12/04/2003 | Takahiro Mori | KON-1839 | 9602 |

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| EXAMINER | |
|---|---|
| CHU, JOHN S Y | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1752 | |

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/727,903 | MORI, TAKAHIRO | |
| | Examiner | Art Unit | |
| | John S. Chu | 1752 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *04 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/13/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

This Office action is in response to the application filed December 12, 2003.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9, 11-17 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by MAEMOTO et al or SAMPEI 2004/0055490 A1.

The claimed invention is drawn to the following:

> 1. A printing plate material comprising an aluminum support, and provided thereon, an image formation layer containing thermoplastic particles and a light-to-heat conversion dye, the printing plate material being capable of being developed on a printing press, wherein the image formation layer changes in color due to infrared laser exposure, and the aluminum support is manufactured by a method comprising the steps of subjecting an aluminum plate to electrolytic surface roughening treatment, subjecting the electrolytic surface roughened aluminum plate to etching treatment in an aqueous alkali solution, and subjecting the resulting aluminum plate to anodization treatment.

MAEMOTO et al anticipates the claimed invention at Comparative examples 1-4 in Table 3, subparagraph [0516] wherein the coating solution 2 as disclosed in subparagraph [0514] recite a polymer fine particle, a light-to-heat converting agent, and a polyacrylic acid which

meets the recited water-soluble resin of claims 8 and 9. The surface-treated aluminum substrate meets claim 1 as recited in subparagraphs [0452] – [0494] wherein the substrate is electrochemically surfaced grained, etch treated with sodium hydroxide and subjected to anodization treatment.

3. Claims 1-9, 11-17 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by SAMPEI 2004/0055490 A1.

SAMPEI anticipates the claimed aluminum substrate in subparagraphs [0136] to [0144]. The surface-treated aluminum substrate meets claim 1 as recited wherein the substrate is electrochemically surfaced grained, etch treated with sodium hydroxide and subjected to anodization treatment.

The coated image forming layer can be found in subparagraphs [0145], [0146] and [0161] wherein a disaccharide trehalose is disclosed as a hydrophilic resin in a composition with particles, and an infrared absorbing dye A, see Table 5.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over MAEMOTO et al (2003/0148207 A1) in view of YANAKA et al (2003/0188653 A1).

The claimed invention is drawn to the following:

> 1. A printing plate material comprising an aluminum support, and provided thereon, an image formation layer containing thermoplastic particles and a light-to-heat conversion dye, the printing plate material being capable of being developed on a printing press, wherein the image formation layer changes in color due to infrared laser exposure, and the aluminum support is manufactured by a method comprising the steps of subjecting an aluminum plate to electrolytic surface roughening treatment, subjecting the electrolytic surface roughened aluminum plate to etching treatment in an aqueous alkali solution, and subjecting the resulting aluminum plate to anodization treatment.

MAEMOTO et al discloses a lithographic printing plate comprising an aluminum substrate an image forming layer and a hydrophilic film wherein the aluminum substrate is subject to an electrochemical surface –roughening treatment. Applicants are directed to page 15, subparagraph [0219] – [0226] wherein an image recording layer is disclosed comprising hydrophobic fine particles The hydrophilic binder of MAEMOTO et al is found on page 19, subparagraph [0238], which include casein, gelatin, a starch derivative and a polyacrylic acid just to name a few. This image forming layer is coated on an aluminum substrate which has been mechanically grained or electrochemically surface-roughened, then subjected to a surface etching by dipping in an acid or an alkali aqueous surface. Finally the aluminum plate is anodized to give the hydrophilic oxide layer on the substrate. Each of the recited steps above

meet the recited printing plate material as claimed in claim 1. The thickness of the oxide layer is disclosed to be 2 $g/m^2$ as seen in Substrate 15 in subparagraph [0485], which happens to fall within the claimed range as recited in claim 2. In addition the method of making the plate in [0485] meets the recited method claims 11 and 12.

MAEMOTO et al lacks the recited oligosaccharide in claim 10 for a trehalose.

YANAKA discloses a lithographic printing plate comprising a hydrophilic support, an imaging layer having at least one of a hydrophobic polymer particles and a light-heat converting agent, The particular teaching relied upon by the examiner is found on page 10, subparagraph [0079] for the specific hydrophilic resins suitable for use in the image forming layer. The components include casein, gelatin, starch derivatives and polysaccharide. Here the reference establishes the functional equivalence of the polysaccharide with other known hydrophilic binders such as casein, gelatin starch derivatives used as the hydrophilic binder in MAEMOTO et al. Applicants are directed to MAEMOTO et al wherein polysaccharide is disclosed to be functionally equivalent to oligosaccharides such as trehalose as seen in subparagraphs [0189] and [0190] on page 13 of MAEMOTO et al. The skilled artisan seeing the functional equivalence of the hydrophilic binders would be motivated to use any of the listed saccharide compounds on page 13 as a hydrophilic binder in MAEMOTO et al.

It would have been *prima facie* obvious to one of ordinary skill in the art of printing plates to substitute a trehalose oligosaccharide in for the hydrophilic binder as seen in Examples 1-4 of MAEMOTO et al on page 51 and reasonably expect same or similar results as disclosed in MAEMOTO et al for a lithographic printing plate with good on-press developability, high sensitivity, good resistance to staining.

6. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over SAMPEI.

The claimed invention has been recited above and is included by reference.

SAMPEI disclose each of the claimed components of the currently recited printing plate wherein an aluminum plate is grained, and an imaging layer is coated on the substrate comprising hydrophobic polymer particles, a light-heat converting compound and a hydrophilic binder are seen in subparagraphs [0106] – [0123].

Applicants are directed to subparagraph [0060] – [0066] wherein an oligosaccharide is disclosed to include a trehalose ([0064]).

It would have been *prima facie* obvious to one of ordinary skill in the art of printing plates to substitute a trehalose oligosaccharide in for the hydrophilic binder in the Examples of SAMPEI and reasonably expect same or similar results as disclosed in SAMPEI for a lithographic printing plate with good on-press developability, high sensitivity, good resistance to staining.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. MORI 2004/0103805 A1 and 6,868,787 are cited of interest as publications or patents to the same inventive entity. No double patenting is seen between the publications and current application.

HOTTA et al to Fuji Photo Film Co LTD discloses lithographic printing plates which are developable on-press and is cumulative to MAEMOTO et al above as to the aluminum substrate, the heat-fusible particles and the infrared light-heat converting compound .

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Chu whose telephone number is (571) 272-1329. The examiner can normally be reached on Monday - Friday from 9:30 am to 6:00 pm.

The fax phone number for the USPTO is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application lnformation Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John S. Chu
Primary Examiner, Group 1700

J.Chu
June 16, 2005